



Application Note No. 0701

Guardian Audio-Visual Alarm Unit



Description

The Guardian Audio-Visual Alarm Unit provides the user with a permanent visual indication of the status of their Guardian system, and an Audio indication when new Alarms are raised.

Enclosed Parts

The Audio-Visual Alarm Unit kit comprises the following components:

- Indicator Unit with 2m of connection cable and mounting brackets
- Amplicon PC263 PC Relay Card and Driver CD
- Latest Release Guardian Suite Software
- Indicator Unit Circuit Schematic
- This Application Note

User Supplied Parts

- External 24V Power Supply. The Audio-Visual Alarm Unit requires an external 24V (250mA) DC power supply, this may be provided from either a stand-alone mains PSU or from an existing (fused) 24V power loop.
- Suitable Mounting screws for the Indicator Unit

Hardware Installation

PC263 Relay Card:

Close Guardian and power down the Guardian PC.

Disconnect the power cord and then press the On-Switch for 10 seconds to ensure that all power has been drained from the motherboard

Install the PC263 card into a vacant PCI slot following the manual on how to install PC cards for your particular PC. **NOTE: The PC263 card can be damaged from static electricity, ensure that you are grounded before handling.**

With the card inserted, and the PC case has been closed, reconnect the power cord and restart Windows.

Windows should automatically detect the PC263 card and start the "Found New Hardware" Wizard.

Insert the Driver CD that was supplied with the PC263 card into a suitable CD Drive.

When prompted to allow Windows to connect to Windows Update to search for software, select "No, not this time"

At the next question, allow Windows to "Install the software automatically"

Windows should then install the required drivers for the PC263 card.

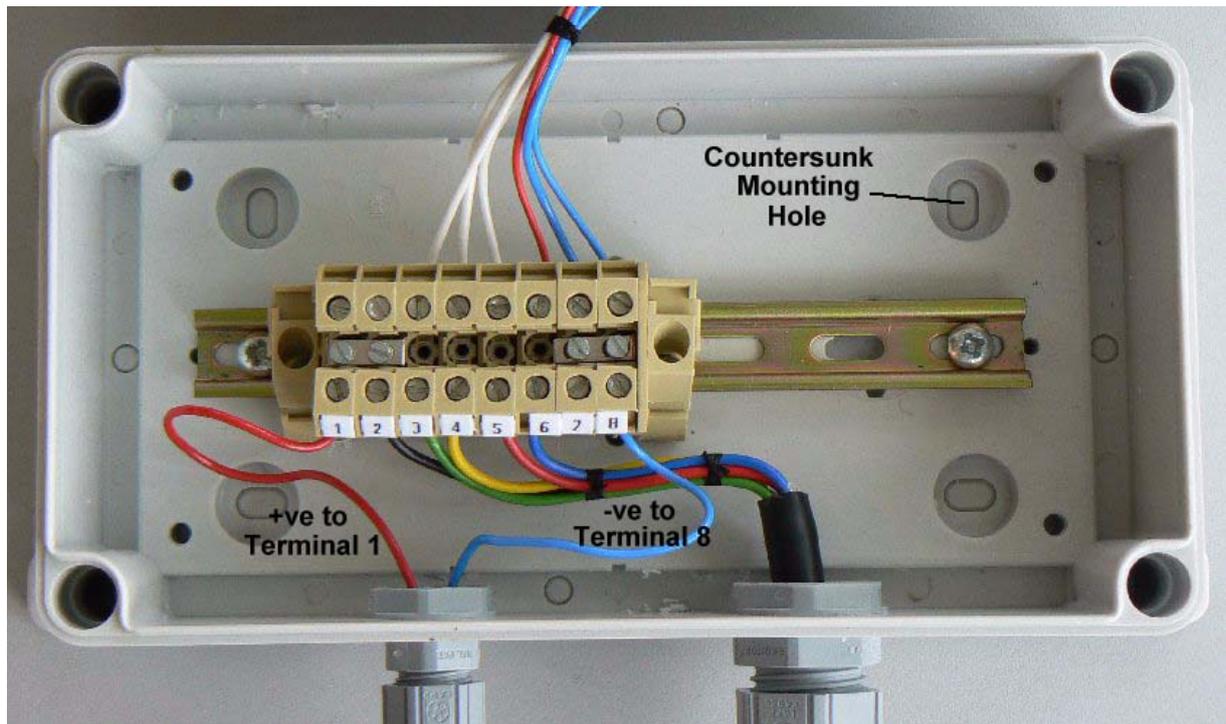
Indicator Unit:

The Indicator Unit comes with a preinstalled 2m cable to connect it to the PC263 card that was previously installed into the Guardian PC.

If the cable length is insufficient to allow the Indicator Unit to be mounted where required, the cable may be extended using suitable 6-way cable. When extending the cable refer to the Indicator Unit Circuit Schematic to ensure that the correct wiring is maintained between the PC and the Indicator Unit. **Note: Incorrect connections may damage both the Indicator Unit and/or the PC.**

The Indicator Unit can be mounted using either the 4 supplied snap-on brackets, by using the mounting screw holes in the 4 corners (provides a sealed installation), or by drilling through the 4 countersunk areas inside the box (see picture below).

Once mounted the 24V-power cable should be connected as per the Circuit Schematic. The +ve supply should be connected to Terminal 1, and the -ve to Terminal 8 (see picture below).



Software Installation

The Audio-Visual Alarm Unit is supported by Guardian Suite V4.11 or greater. Before installing the new software ensure the existing version is uninstalled via the Windows Control Panel "Add or Remove Programs" icon.

Uninstalling the software does not affect the database, however it is prudent to take a copy of your system project folder that will be found in "C:\Program Files\Guardian\Databases"

Insert the Guardian Suite CD and follow the menu options and install the "Guardian Software".

Guardian Configuration

Now the software has been installed, unless a new database was supplied, your Guardian database needs to be modified in order to use the Audio-Visual Alarm Unit.

From the Windows taskbar run the application **All Programs... Guardian... Applications... Visual Designer**. A document describing the *Visual Designer* can be found on the CD and installed on the PC in "C:\Program Files\Guardian\Documents".

Database Upgrading

Visual Designer will first offer to rename the database file with a .gdb extension. Accept this change.

Visual Designer will report that the database version is less than expected. It will offer to start the *Database Toolkit* application in order to upgrade it for you. Start the *Database Toolkit*. A

manual exists for this application in “C:\Program Files\Guardian\Documents”, however for this upgrade you will only have to:

1. Click the **Upgrade** Button to Upgrade the Database to the latest format.
2. When the upgrade has been completed, click the **Complete** Button to return to the original menu.
3. Close the Application using the Windows Close **Cross** button on its title bar.
4. Restart **Visual Designer** to carry on as before.

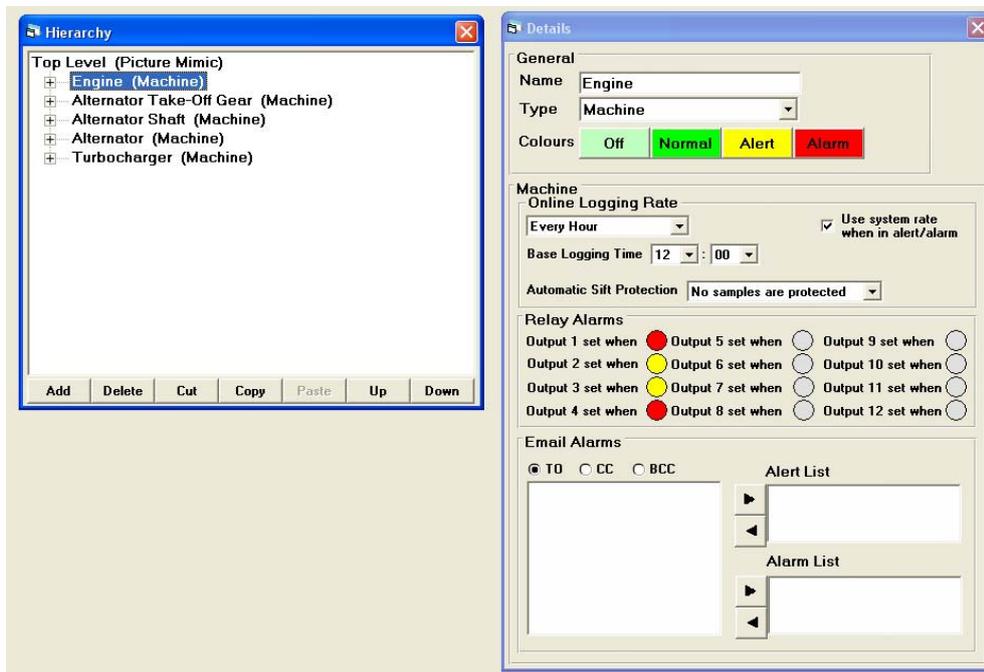
Visual Designer

Your system database will be automatically loaded and you should see a single window depicting its hierarchy, you will have to make changes in two locations in order to use the Audio-Visual Alarm Unit.

Machine Details

Click the **Details** button on the toolbar and then click each of the “**(Machine)**” items in the Hierarchy in order to display their detailed settings. Change the options in the **Relay Alarms** frame to match those shown below.

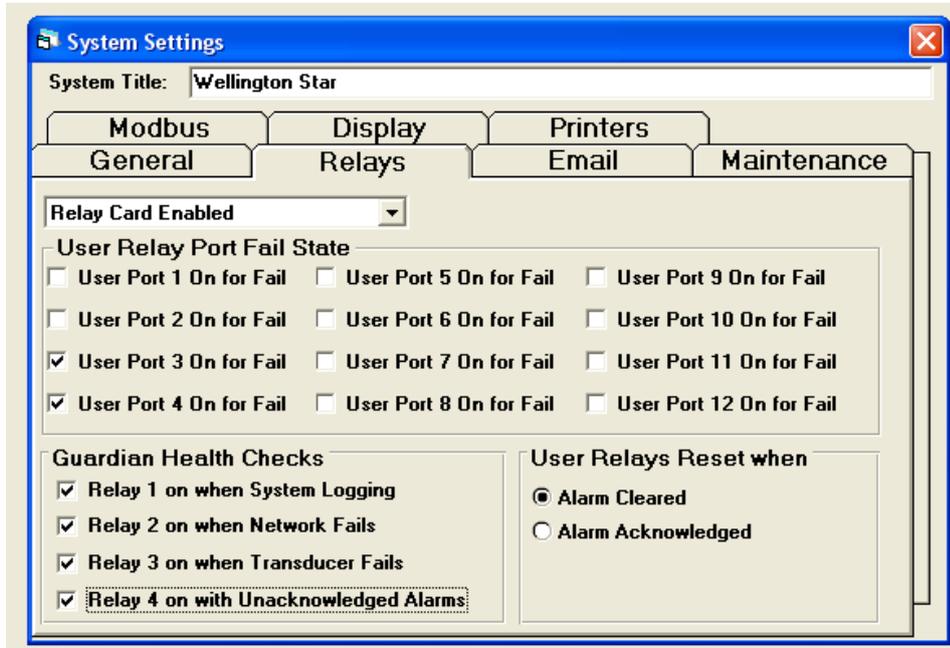
To change the colour of the Relay Output options, left click on its circle, the colours cycle through from **Grey** to **Yellow** to **Red** then back to **Grey**.



You must do this for each of the “**(Machine)**” items by selecting them one at a time. The **Hierarchy** and **Details** windows may be closed once you are finished.

System Settings: Relays

Click the **System** button on the toolbar and select the **Relays** tab. Click on the options until they match those shown below.



You can close the **System Settings** window when you are finished.

Validate

Once all of the Machine levels have been set, click the **Validate** button on the toolbar and check to ensure that there are no errors reported. You may see several Warning notes, but these are acceptable.

Your database is now ready to use, close **Visual Designer** and run **Guardian**.

System Operation

Initially when **Guardian** starts, all three of the Lamps will be off. Once **Guardian** has loaded and started to log data, the Green light will illuminate.

At any time when **Guardian** detects a new Alert or Alarm condition, the Sounder will start and will stay on until the condition is **Acknowledged** from the **Guardian Current Events** window.

The Yellow and Red lamps will illuminate to indicate that the worst condition within **Guardian** is an Alert or Alarm respectively. These will stay on until the alarm condition is cleared, again from the **Current Events** display.